

An
Inaugural Essay.
on
Hydrothorax
Submitted to the Provost.
And Medical Faculty
of the
University of Pennsylvania
for
The Degree of M.D.
by
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of Virginia

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Hydrothorax

It is a fact well established among Physiologists. That when the system is in a healthy and undisturbed condition. There is constantly pouring into every cavity and interstices of the body, a watery fluid which without being permitted to accumulate to any extent, is taken up and carried off, by a set of vessels appropriated for that purpose. But it occasionally happens, that the quantity of this fluid, is preternaturally increased in some one of the cavities in the system, producing the disease termed Dropsy. And is then by Medical writers designated by different appellations; according to the particular cavity or interstices, in which this unusual accumulation may be present. And hence we meet with Anasarca, Ascites, Hydrocephalus Internus and Hydrothorax or it is called by some Hydrope Pectoris. The last of which is that form of Dropsy I shall consider in this dissertation.

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Hydrothorax, or as it is termed by some
Osteologists *Hydrops Pectoris*, is defined to be a spontaneous
collection of a watery fluid in the chest, and is derived from
the Greek words *Hydro* water and *Thorax* the chest

Of all the different forms of Dropsy, to which the
human system is liable this is considered to be by far
the most formidable, And by the generality of writers is
regarded as a disease perfectly incurable; admitting under
the most favourable circumstances but of a casual and
temporary relief from medicines. This opinion however
appears obviously to have originated from an incorrect
view of its pathology. For by almost all the European
Practitioners it is most strenuously maintained, that this
with the other forms of Dropsy is a disease originating
in debility, and associated with what they term, a cach-
ectic condition of the system. And necessarily requiring
for its cure the tonics and stimulating remedies.
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resulted from a practice founded upon such grounds.
That dropsy however may be operated with debility, what
cannot be denied. But we shall soon persuade almost
invariably find Hydrothorax in its commencement, ^{as}
accompanied with considerable degree of inflammatory excite-
ments, and requiring a plan of treatment, totally different
from that pursued by most European Practitioners.

And to this error - in its pathology, we may attribute
its fatality, and not to any necessary consequences of the
disease. Labouring under this opinion I now proceed to
the considerations of its causes, symptoms, and method of cure.

The predisposing Causes of this disease are various
but among the most frequent are a malformation of the
chest, short thick make with a natural disposition
to copulosity, to which may be added a sedentary occupa-
tion.

The exciting causes are a too free indulgence in
malt or spiritous liquors particularly Porter Beer, &c.

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All causes interrupting the free circulation of blood, through the aorta, as polypus, aneurismal tumor, causing a large quantity to be accumulated or determined to the chest by pressing upon the large blood vessels. And also enlargements and indurations of the liver. It may also occur as the consequence of ill cured Pneumonia, Asthma, and Catarrhs.

Symptoms.

This disease usually commences with difficulty in breathing accompanied with considerable oppression and tightness about the Precordia and this difficulty in respiration is easily increased upon any emotion of the mind or bodily exertions, particularly if the Patient attempts to mount an eminence or ascend an acclivity. After a while it becomes so very oppressive, as to deprive the patient of his usual enjoyment of rest, in bed, and requires his shoulder and head to be considerably elevated in order as they are in the habit of saying to prevent suffocation. He frequently starts up out of his sleep and complains.

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Of great suffocation with violent palpitations of the heart. The urine is high coloured and scanty. The Pulse is quick, irregular, and somewhat intermitting; and in the early stage manifesting considerable activity. The countenance is pale, and indicates a peculiar degree of anxiety and distress, and there is generally a purple hue of the eyes and lips. A cough, attended by dyspnoea, which is at first dry, but in the more advanced stage is accompanied with an expectoration of thick Phlegm, or mucus. There is also a difficulty in deglutition, which is productive of more or less pain, with great thirst.

Dr Chapman says he has generally observed, that there was more or less paralysis, or sensation of numbness, in the arm of the affected side. There is generally an oedema of the lower extremities. Dr Cullen says that a fluctuation of water, perceived by the patient, is when changing the different postures of his body, is the most decisive symptom. There is always more or less dyspnoea present.

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Diagnosis

Our diagnosis in the early stage of this disease, will be difficult in proportion to the rapidity with which the water accumulates. If it be slow, and gradually increased, the symptoms will be obscurely marked, and what increases this difficulty, is the number of diseases, with which hydrothorax, is liable to be compounded, ~~as~~ such as Empyema, Angina Pectoris, and Asthma. But by a close attention, to the peculiarities of each case, we will generally be able to distinguish them. And in the latter stages, the phenomena of this disease, will be so striking, the horror and sufferings of the patient so extreme, as irresistibly to force themselves, on the attention of the practitioner and leave no doubt, as to the real existence of Hydrothorax.

Appearance on Dissection. Upon dissection we find a collection of water in one or both sacs of the Pleura, and most generally in both accompanied by a collection, in the cellular texture

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and principal cavities of the system. The fluid is usually of a yellowish colour and possesses properties similar to serum. It also varies much in regard to quantity, which if great the lungs will be found proportionably reduced in size. And we will very often find some of the abdominal viscera diseased, particularly the liver, and this is much more apt to be the case if the disease has been preceded by general anasarca.

Treatment.

Called to a patient in the early stage of Hydrothorax, we should resort to venesection as the first, and best step, towards arresting its progress. The propriety in this mode of proceeding is justified by the success which usually attends it, and by the obvious indications of the Pulse and accompanying symptoms of the case. Its utility is also acknowledged and recommended by the most respectable practitioners of this country. No definite rules however can be laid down as regards the quantity to be extracted

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This must depend upon the judgement of the Practitioner
and the existing circumstances. As auxiliary to respiration
we may derive great advantage from the application
of cups and leeches to the back or sides. Some suppose
that we shall derive greater advantage by placing
them between the shoulders, I am not aware however
that any material difference exists, as to the particu-
lar spots upon which they should be applied.

We are informed that several of the most eminent
practitioners of Philadelphia are in the habit of treat-
ing this disease intensely in the early stage by topical
depletions. There can be no doubt as to the utility
of this particularly when we are apprehensive that
the system is not capable of sustaining a more active
depletion. After sufficient evacuations have been
promised by the means above mentioned we should
recur to the use of blisters; which should be large
enough to cover the whole chest and as fast
as we feel another should be applied so as to
keep up a constant discharge, by observing this

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method we shall derive great and decided advantage should the disease not yield to this treatment we should resort to diuretics which is a class of remedies renowned for their utility in all hydropic affection. The best of which is a combination of Calomel and Squills in the proportion of 2 grains of the former with 3 of the latter which should be given 3 or 4 times a day until a salivation is produced.

we are informed by Dr Chapman that as soon as the mouth becomes affected we shall have the pleasure of seeing the disease arrested and with it the oppressive oppressions of the breast and all the other bad symptoms subside. This has appear somewhat enthusiastic but of the incalculable utility of this combination there can be no doubt, for we have the concurrent testimony of several of the most eminent Practitioners of their effecting cures with it when all other articles had failed. Digitalis once stood so prominent for the cure of this disease as to be considered a specific by several of the most eminent Practitioners of Europe

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of whom says he has never seen a case of Hydrops
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yield to the use of this article. Even however
does not appear to be the opinion of the Practition-
ers of this country, they on the contrary condemn
the article as perfectly useless in this disease and
some go so far as to say it is productive of injury
How such contradictory statements are to be rec-
ciled I cannot possibly conceive. That both are wrong
I think it highly probable. One has been misled
by his enthusiastic love of the article and the other
has run into the opposite extreme. That Digitalis
has been productive of good in the cure of this dis-
ease, there can be no doubt. And the testimony is
so abundant and respectable that it certainly would
be scepticism in me to deny its utility altogether
but that it is deserving of the high encomiums pro-
fessed by Hamilton and other European writers.

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is what I cannot willingly acquiesce in. Should the Calomel and Squills fail; we may with propriety recur to the use of Digitalis. In its administration there is one very curious and important fact which is worthy of recollection; that on an exhausted and debilitated system Digitalis acts most kindly and beneficially. And as long as there remains any activity in the circulation or general strength, it will prove injurious. Different modes are used in its administration, but the powder is preferable in doses of 2 or 3 grains once or twice a day, agreeable to circumstances. Dr Ferriar's who is a very intelligent and enlightened practitioner recommends the following prescription as being one of the best and most certain evacuants of water.

Rf Ext. Claternum ʒi	{ to be mixed together and one dram to be taken with a little water 3 or 4 times in 24 hours.
Sweet spirit of Nitre ʒij	
Tincture of Squills ʒʒ.	
Crystall. Colubicum ʒʒ.	
Syrup of Buckthorn ʒi ss	

I know nothing of the utility of this combination but coming from such respectable authority. It certainly should

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be considered as worthy of our attention. From the beneficial effects of emetics in most diseases of the chest. It would be reasonable to suppose, that they would be productive of good in Hydrothorax; such however is not the case. But on the contrary they are said to aggravate the symptoms and increase the difficulty of cure. Where there is accumulations of phlegm, with difficult expectoration they might be used with evident advantage, in nauseating doses. I have now mentioned all the different remedies which will be found requisite in the treatment of this disease. And if administered with due direction and judgment will I am persuaded be sufficient to arrest the disease and restore our Patient to health.

But before closing it may be necessary to remark that the Patients diet should be low and nourishing but not stimulating, he should abstain from all spirituous liquors and as soon as he is able should take moderate exercise on horse back or in an open carriage. And above all to guard against Cold he should therefore never expose himself and should wear flannel.

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And in order to strengthen his system and invigorate
and give tone to his constitution. Tonics should be
employed. I deem it however unnecessary to say as to
what particular Tonics should be used. The Minerals
are however considered as the best. This however
may be left to the Practitioner.

I will now conclude by remarking that I have made
no attempt at originality as may be perceived in the
perusal of this essay. But on the contrary have
selected from every different author such sentiments
as was consistent with my views of the subject.
and have compiled though I must confess in an im-
perfect and desultory manner for your consideration.
Not however gentlemen without being impressed
with the painful conviction of its imperfections
be I submit it for your perusal yet with a confident
hope that it will meet with that goodness and lenity
for which you are so renowned and so capable of
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